CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/WNo.05/GR/CEMENT/2014-15

Date: 13.08.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. Gopireddy,** Contractor, Bangalore.
NAME OF THE WORK	:	Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.
REFERENCE	:	AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	145 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	475 Minutes	Not More than 600 Minutes
3	Soundness by the Le-Chatelier method	IS-4031 (Part 3)	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/WNo.05/GR/SAND/2014-15 : 13.08.2014

TEST REPORT ON FINE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.

Agency : **Mr. Gopireddy,** Contractor, Bangalore.

Name of Work : Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.

Reference : AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014

Date of Testing : 13.08.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	85	4.25	4.25	95.8	90-100
2.36	185	9.25	13.50	86.5	75-100
1.18	475	23.75	37.25	62.8	55-90
600 Micron	520	26.00	63.25	36.8	35-59
300 Micron	500	25.00	88.25	11.8	8-30
150 Micron	125	6.25	94.50	5.5	0-10

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Job No.: CTCE/BBMP/WNo.05/GR/AGG/2014-15 : 13.08.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.

Agency : **Mr. Gopireddy,** Contractor, Bangalore.

Name of Work : Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.

Reference : AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014

Date of Testing : 13.08.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25500**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	1005	3.94	3.94	96.06	95-100
20	16155	63.35	67.29	32.71	30-70
10	5185	20.33	87.63	12.37	10-35
4.75	2655	10.41	98.04	1.96	0-5

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TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.

Agency : **Mr. Gopireddy,** Contractor, Bangalore.

Name of Work : Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.

Reference : AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014

Date of Testing : 13.08.2014

Material : 20mm Aggregates

Total Wt. of Aggregates in gms= **5000**

Tabel - 1

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	150	3.00	3.0	97.00	95-100
10	3200	64.00	67.0	33.00	25-55
4.75	1350	27.00	94.0	6.00	0-10

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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/WNo.05/GR/CUBE/2014-15 24.08.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	: **Mr. Gopireddy,** Contractor, Bangalore.
Name of the work	: Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.
Reference	: AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014
Sample ID	: Coping Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 7th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	17.08.2014	24.08.2014	8.102	232.5	10.33
2	17.08.2014	24.08.2014	8.206	240.6	10.69
3	17.08.2014	24.08.2014	8.308	252.3	11.21

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Job No.: CTCE/BBMP/W.No.05/GR/STEEL/2014-15 13.08.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. Gopireddy**, Contractor, Bangalore.
Name of the work	:	Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.
Reference	:	AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014
Date of Test	:	13.08.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	12	0.89	521	551	13.15	O.K	O.K

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Job No.: CTCE/BBMP/W.No.05/GR/CUBE/2014-15 23.08.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	: **Mr. Gopireddy,** Contractor, Bangalore.
Name of the work	: Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.
Reference	: AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 7^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	16.08.2014	23.08.2014	8.319	393.6	17.49
2	16.08.2014	23.08.2014	8.241	380.4	16.91
3	16.08.2014	23.08.2014	8.165	361.7	16.08

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Building & Highway Material Testing Laboratory

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Job No.: CTCE/BBMP/W.No.05/GR/WBM-II/2014-15 Date: 16.08.2014

REPORT

Client	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. Gopireddy,** Contractor, Bangalore.
Name of the Work	:	Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.
Reference	:	AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014
Type of Mix	:	Water Bound Macadam (Grade-II Metal)
Date of Sampling	:	14.08.2014
Date of Testing	:	16.08.2014

1) SEIVE ANALYSIS :

IS Sieve designation Size, mm	Percentage Passing for Graded Aggregate of Nominal size	Percentage by Weight Passing as per MORTH table 400-7
90mm	100.00	100.00
63mm	92.56	90-100
53mm	32.45	25-75
45mm	9.10	0-15
22.4mm	1.85	0-5

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Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.05/GR/WBM-III/2014-15

Date: 20.08.2014

REPORT

Client	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. Gopireddy,** Contractor, Bangalore.
Name of the Work	:	Improvements to road and drains at Ramanjenaya Layout Palanahalli Ward No. 05 Byatarayanapura Sub Division, BBMP, Bangalore.
Reference	:	AEE/Byatarayanapura/BBMP/72/2014-15 Dated: 12.08.2014
Type of Mix	:	Water Bound Macadam (Grade-III Metal)
Date of Sampling	:	18.08.2014
Date of Testing	:	20.08.2014

1) SEIVE ANALYSIS:

IS Sieve designation Size,mm	Percentage Passing for Graded Aggregate of Nominal size	Percentage by Weight Passing as per MORTH table 400-7
63mm	100.00	100.00
53mm	97.82	95-100
45mm	71.34	65-90
22.4mm	4.78	0-10
11.2mm	1.49	0-5

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